1: Longrigg
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MH1 Iraq MH1

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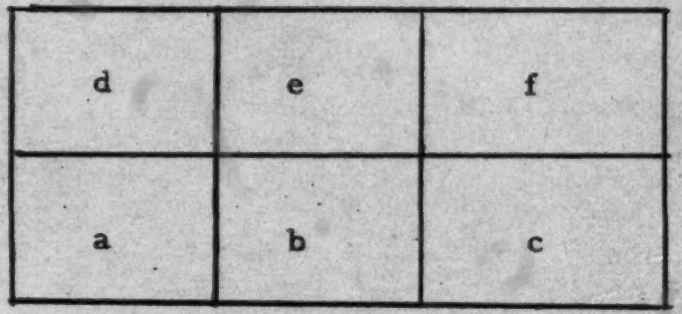

1: Longrigg G-4, 5 (ca. 1915-1940) MH1 Iraq MH1

a Turkish expedition first penetrated to their fastnesses, had been formed on paper into a qadhā of their own, with their Aghā irreplaceable as Qa'immaqam. The nomadic Harki passed annually across the Persian frontier, to the ruin of all settled folk in their path. Equally disastrous as neighbour or subject, and as ready to cross into Persia, was the oppressive restless Shaykh of Barzan, the religious prestige of whose family had attracted and settled a 'tribe' across the Zab from the Zibar country. Within the northern frontier of Mosul wilaya lay settled tribes, largely of the Ḥakkari group. They included the Shirwan, Mizuri, and Barwari groups. The folk of the tribeless 'Amadiya villages were reckoned also as of Ḥakkari stock.

6. RESOURCES AND COMMUNICATIONS

Many or most of the miseries of the 'Iraq of 1900 were due, it has been seen, to a single cause: the all-pervading poverty of the country and its Government. How then, in a territory famed of old for its wealth, were the modern 'Iraqis—and their Government—in fact gaining so poor a living?

The mineral resources of the wilayas were of the slightest. Building stone in the north, fullers' earth, some sulphur, salt, some low-grade 'coal' and gypsum: these were of some domestic use, but none provided wares for export. More significant were the seepages of mineral oil at many places in northern 'Iraq. At Hit on the Euphrates the bitumen outcrops had been worked since remote antiquity, and still gave material for the local industry of boat and coracle building. At Qaiyara and at Ṭuz Khurmatu the Saniya Administration owned outcrops of liquid petroleum, and exploited them by devices of comical primitiveness. At Kirkuk the seepages of Baba Gurgur belonged by ancient Firman to the Naftchi family. For those north of Mandali (which are those today exploited at Naftkhana), a refining plant had been erected at Ba'quba in 1871, but the project languished and failed. Applications by Europeans to exploit this and the Qaiyara oil were refused; but German experts had visited 'Iraq in 1871, and samples had been sent to London. The oil rights of the wilayas had been transferred, significantly, from the Finance Ministry to the Sultan's privy purse in 1889.

Local industry was insignificant and almost all unmechanized. There was some silk weaving at Baghdad and the smaller towns, some weaving of cotton and woollen cloths, rough mats and rugs. Jewellers' work was poor in quality, save for the curious antimony-on-silver "Amara work' of the Sabaeans. Finer work of Persian craftsmen in wood and ivory, and the kettles of the Baghdad coppersmiths, supplied local needs. Bright-coloured tiles were

1: Longrigg G-4, 5 (ca. 1915-1940) MH1 Iraq MH1

The infant oil industry in neighbouring Persia will be mentioned later (p. 71). In 'Iraq, in spite of some enlargement of the primitive extraction and refining plants at Qaiyara and elsewhere, no modern oilfield enterprise appeared. Nevertheless, the presence of important oil deposits in the Mosul and Baghdad wilayas was universally believed, and was affirmed by German visitors in 1907. The first move was the allotment of a twenty-metre strip of territory, athwart the railway alignment, to the Anatolian Railway in its 1902 and 1903 Conventions; the Sultan reaffirmed in December 1903 his previous Iradas declaring the Privy Purse to be sole owner of 'Iraq oil; and in July 1904 an option for exploration was given by that administration to the Baghdad Railway who passed it to the Deutsche Bank. It was not pursued, and after two renewals the option was treated by the Turks (though never by the Bank) as having lapsed.

Meanwhile W. K. D'Arcy, after gaining his Persian Concession (p. 71), had sent a representative to Istanbul in 1901 and after three years of negotiation and a ministerial promise that a concession would later be forthcoming, firm application was made by his new-formed Ottoman Petroleum Syndicate. Success was almost achieved in 1908; but the revolution interfered, Royal Iradas retransferred Turkish oil rights to the Treasury, and all negotiators perforce started again. The latter by now included another British group associated with Mr. C. S. Gulbenkian, an able and progressive Armenian, and representatives of Admiral Chester, an American ex-officer with long-standing Turkish connexions and now a candidate for railway and mineral privileges.

The aspirants for 'Iraq oil development—for this was chiefly though not exclusively in question—regrouped and returned to the attack in 1910. In January 1911 Mr. Gulbenkian's group formed African and Eastern Concessions Ltd., with substantial holdings by the newly founded (British) National Bank of Turkey, the Shell interests, the Deutsche Bank, and Mr. Gulbenkian himself. The Company was late in 1912 renamed the Turkish Petroleum Company, with doubled capital, and the Deutsche Bank agreed to transfer to it the options which it claimed for railway-strip exploration. The D'Arcy interests, merged in the Anglo-Persian Oil Company since 1909, continued to press its candidature, which in 1913 again narrowly failed of success. Meanwhile, late in 1909, a Turkish Parliamentary Committee had voted for the grant of mineral rights on a 900 mile railway strip to Admiral Chester; and strong German opposition was needed to thwart his efforts to achieve ratification.

By 1913 the desirability of reconciling the rival applicants and enabling field work to commence was clear to all. Anglo-German

1: Longrigg G-4, 5 (ca. 1915-1940) MH1 Iraq MH1

315 471 648* agreement on the diplomatic level was added to that of the Companies. The Turkish Petroleum Company was again reorganized. A quarter of its capital was allotted to the Deutsche Bank, a quarter to the Shell group, and a half to Anglo-Persian, with an interest of 5 per cent. to Gulbenkian. Confident application could now be made to the Grand Vizier, with the backing of both British and German Ambassadors. The result was a letter to these from Sa'id Halim Pasha on 28 June 1914. It stated that the Minister of Finance agreed to lease to the T.P.C. all oil deposits discovered or to be discovered in the Mosul and Baghdad wilayas, and 'reserved the right later on to fix its own share, as well as the general terms of the Agreement'. Upon this letter, precisely, was based the application of the T.P.C. to the 'Iraq Government in 1923 for an oil concession to cover northern and central 'Iraq.

5. NEIGHBOURS AND FOREIGNERS

648* The increase in foreign interest and interests in 'Iraq during this period was rapid beyond precedent. It is explained by 'Iraq's more active participation in the nationalist movement, in Istanbul politics, and in educational foundations such as the Tribal College and the American University of Beirut; and it was aided by the railway and irrigation works projected and under execution, and the considerations of strategy and development suggested by them.

The Germans had, from 1900, included 'Iraq in their area of eastern expansion. They had taken the lead in archaeological work by nearly two decades of excavation by Koldewey at Babylon, and initiated excavation elsewhere in 'Iraq, for which their Consuls alleged the personal interest of the Kaiser. They founded a German school in Baghdad, and invited the French Carmelite fathers to teach German. They appointed a regular Consul in Baghdad in 1905 with his Vice-Consul at Baṣra, and planned a German-dominated quarter of the town with the Consulate, railway station, wharves, and Customs house. Since the earliest arrivals of German steamers at Baṣra in 1899, the subsidized traffic of these had steadily increased. The Hamburg–Amerika Line started regular sailings in 1906, to be followed by an influx of German commercial travellers and resident agents—notably the firm of Wonckhaus at Baṣra—and by the appearance of their goods in the Baghdad shops. 'Iraq, in fact, seemed destined to afford a stage for full German penetration.

Russian enterprise still kept to limited and uncommercial lines. Having failed at Kuwayt, they felt their way towards acquiring rights in a Persian port, and projected a trans-Persian railway; but the Anglo-Russian Agreement of August 1907 helped to remove from these projects the element of menace to British interests in the

1: Longrigg G-4, 5 (ca. 1915-1940) MH1 Iraq MH1

two-metre-gauge systems (Baghdad–Baṣra and Baghdad–Kirkuk) remained a source of delay and trouble, and the floods of 1926 destroyed much railway property. But the reopening of Persian pilgrim traffic after 1924 brought welcome revenue to the railway. The Indian labour disappeared in thousands year by year, replaced by 'Iraqis.

Industry in modern guise was slow to appear. Cotton-ginning and mechanical transport maintenance, ancillary to other forms of enterprise, have been mentioned. Of modern manufacture there was none, though various possibilities were often discussed. The future source, however, of the country's greatest single enterprise and wealth advanced during these years from the conference-room into the open: mineral oil.

The Turco-Persian Frontier Commission of 1913–14 had allotted to Turkey, and therefore ultimately to 'Iraq, the western half of the Naftkhana border area south of Khaniqin; and the Turkish, and thus by inheritance the 'Iraqi, Government had accepted that this Transferred Territory should be treated as still included in the grant made to D'Arcy in 1901. Negotiations on this basis between the Anglo-Persian Company and the 'Iraqi Ministry of Works were concluded in 1925, and later reopened to produce a revised and modernized agreement in May 1926. Drilling had early located a producing well, followed by others, and it was decided to convey the crude oil by pipeline the twenty-mile distance to Khaniqin. The refinery which, with Government encouragement, the Company decided to erect at Alwand outside the town, but still within the Transferred Territory, was begun in June 1926. 'Iraq seemed thus assured of its own petroleum supply, with all the importance of this to mechanical transport, pump-irrigation, and perhaps future industries.

The Vizirial promise given to the Turkish Petroleum Company on 28 June 1914 had in the seven years following been first doubted but later affirmed by the Foreign Office. It was questioned but later accepted by the French who in 1920, under the Cadman–Berthelot agreement at San Remo, inherited the Deutsche Bank's 25 per cent. shareholding in the Company; and it was viewed askance by the Americans who demanded an Open Door to 'Iraqi development with no complication of old unratified promises. This diplomatic obstacle was removed by the allotment of half the Anglo-Persian share to a group of American companies by an agreement reached in principle in 1923, but not implemented formally until 1928. Thus the shares of the Company in its final form were held as to 5 per cent. as ever by Mr. Gulbenkian, and as to 95 per cent. equally between the Shell Group (as the Anglo-Saxon Petroleum Company), the Anglo-Persian (as the

G-4, 5 (ca. 1915-1940) MHI Iraq MHI

D'Arcy Exploration Company), the French Government-sponsored Compagnie Française des Pétroles, and the American companies grouped *ad hoc* into the Near East Development Corporation. This shareholding was unchanged thirty years later, except in the internal holdings within the American group, where the six early participants narrowed finally to two, the Standard Oil (New Jersey) and the Socony. The Turkish Petroleum Company approached the successor Government first in 1924 for a suitable implementation of Sa'id Ḥalim Pasha's promise. Discussions were prolonged, Government a hard bargainer, and the Company's ideal of an all-'Iraq 'blanket' concession impossible of realization. The agreement signed in March 1925 covered the whole of Mosul and Baghdad wilayas and, since Parliament did not yet exist, was ratified by the Council of Ministers and the King. It provided for exploration by the T.P.C. within a time limit, for the selection of limited plots for the Company's own exploitation, with the obligation to let the remaining territory pass for development into the hands of the highest bidders. The royalty payable on petroleum obtained was to be four shillings (gold) per ton. Upon these bases, later to be revised, geological work in the field could begin, with great energy and expense, before the end of 1925. Concentrating first upon the known seepages and visible surface structures of the southern districts of Mosul wilaya, the Company devoted 1926 to extensive exploration. It was accompanied by the making of roads, the laying of water and fuel pipelines, and the erection of buildings. Fifty British and 2,500 'Iraqis took part. Drilling sites were selected in the Jabal Ḥamrin, near Ṭuz Khurmatu, in the neighbourhood of Kirkuk, and near Qaiyara and south of Sharqaṭ on the right bank of the Tigris. Drilling was to begin early in 1927. The claims put forward by the heirs of the late Sultan Abd al-Ḥamid, a formidable body of Turkish princes and princesses, to the ownership of all the oil of the old Ottoman Empire, and much besides, were not then or later taken seriously in 'Iraq.

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End Map (A)

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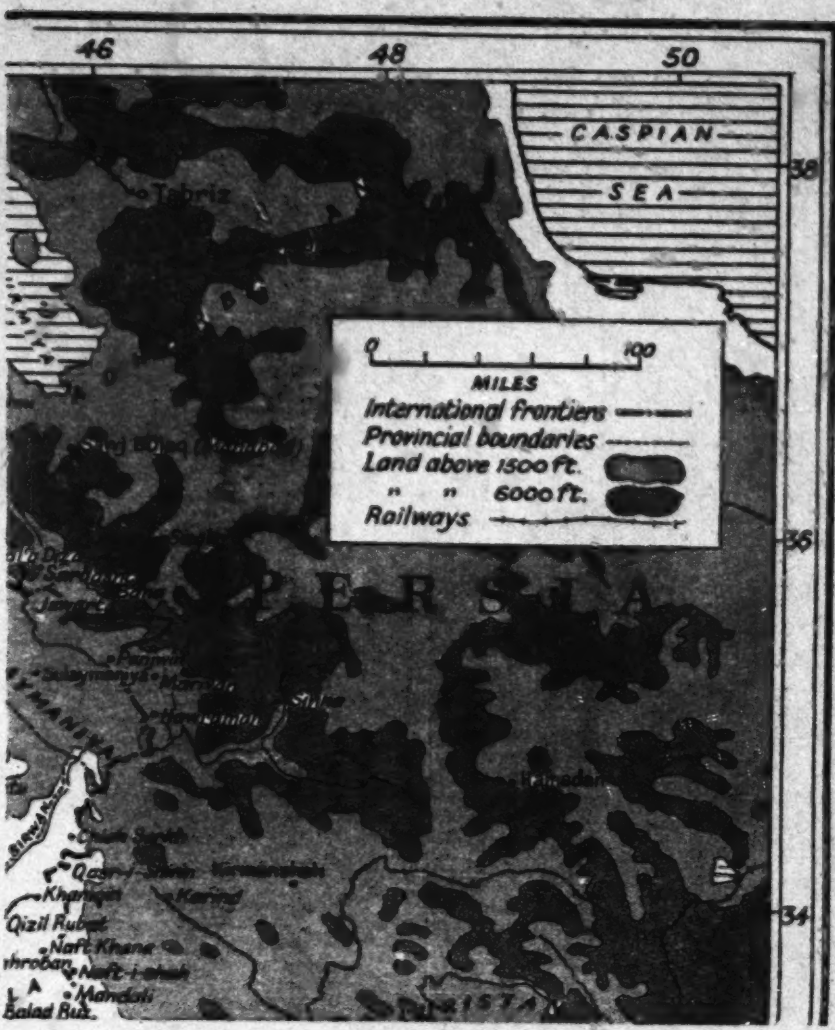

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6:Ireland S-5 (no date)1937 MH1 Iraq MH1

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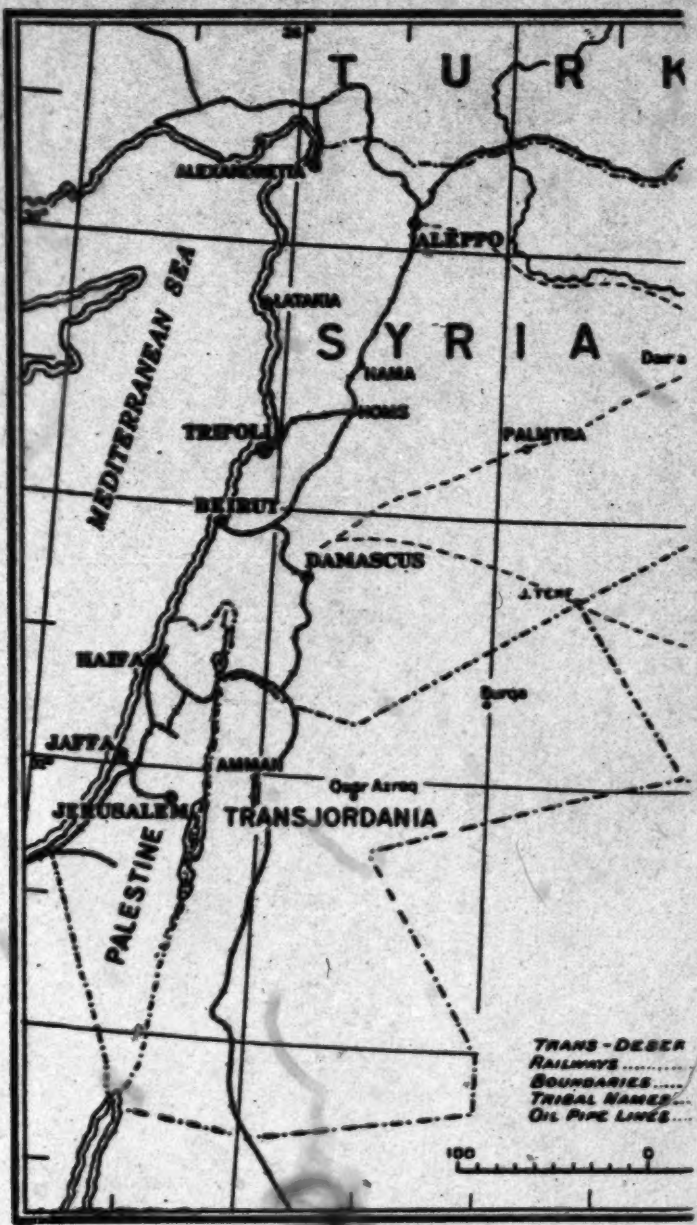

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[following p. 96(b)]

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[Spelling p. 96(c)]

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1

The Mission has carefully considered what industries might be expanded and what new industries might be established. It has sought to confine its recommendations for industrial development to those industries where there is reasonable prospect of efficient production, competitive with imports, and where production is within the technical capacity available in Iraq, supplemented, where necessary, by outside technical and managerial assistance.

Petroleum and Refining

No recommendations need be made on the oil industry. The oil resources of Iraq are immense, the reserves of the Kirkuk field amounting reputedly to 1,000 million tons and those of the less well explored fields near Basra offering perhaps equal promise. The development of these resources by the oil companies is proceeding along sound lines. The oil companies have also been well in advance of other enterprises in providing housing, health services, and other amenities for their employees, in instituting labor training schemes and providing better pay for workers. The Mission realizes that there has been some criticism in Iraq of the rate of development, particularly in the Basra field. The expenditure of close to £90,000,000 by the oil companies on oil development in Iraq is now, however, beginning to yield a rapidly rising output. Production in recent years might have been much greater if the outbreak of the war with Israel had not resulted in closing the pipeline to Haifa and in preventing the completion of another pipeline to that city. The existing line has a capacity of 2,000,000 tons and the projected line would have added another 4,000,000 tons. As already indicated, the government has recently obtained a commitment by the oil companies to increase output, which was a little less than 6,000,000 tons in 1950, to 30,000,000 tons per year by the end of 1955. It would not be advantageous to Iraq, however, to have production increased to such levels that the ensuing rise in oil revenues cannot in fact be effectively spent. Oil in the ground is a reserve for the future, and too rapid tapping of this reserve may entail a partial waste of resources.

The government has decided to build a modern oil refinery near Baghdad which it anticipates will cost about £7,000,000. This refinery will use crude oil supplied from the Kirkuk fields at cost. With an annual capacity of 1,000,000 tons, it will be able to supply

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1

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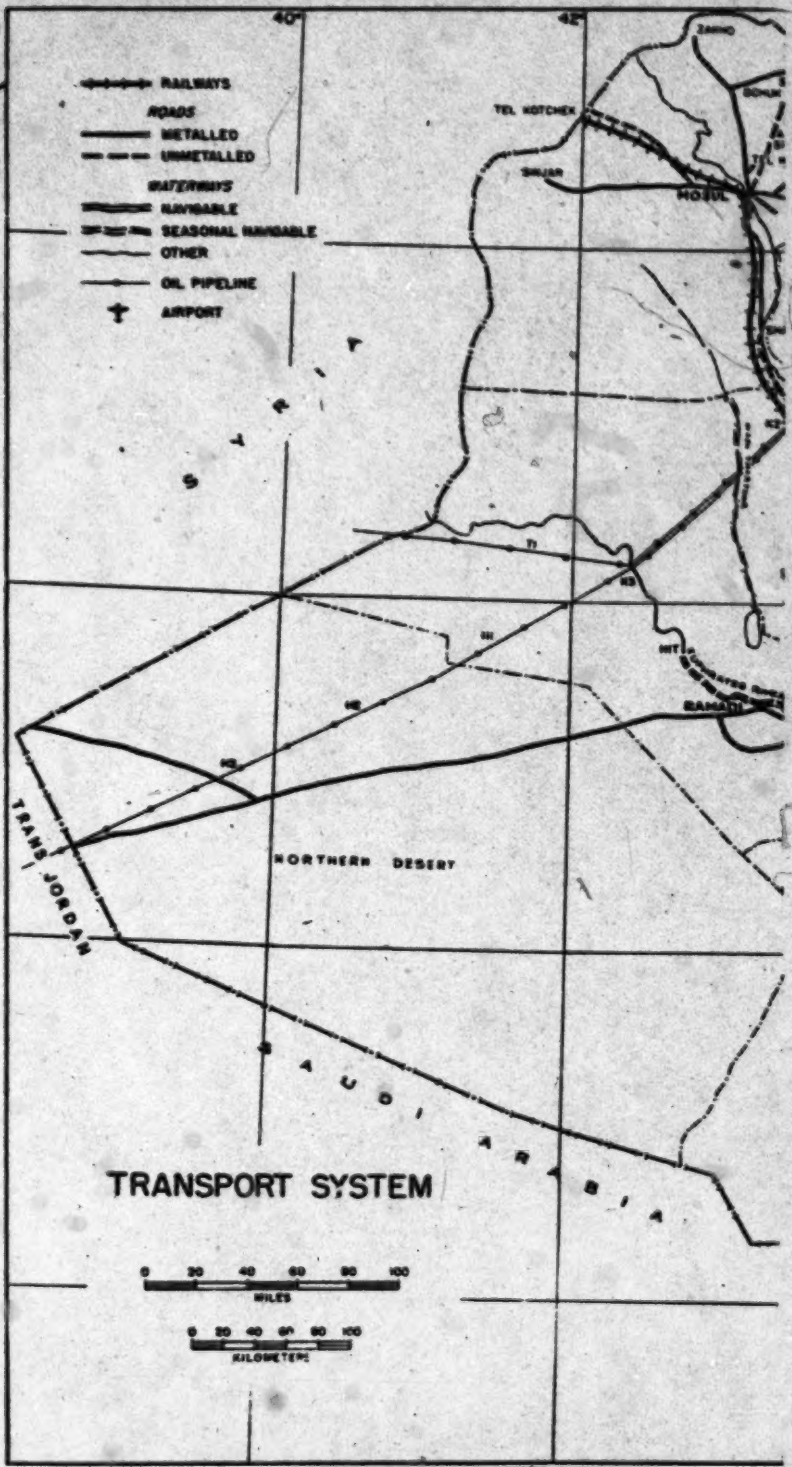

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7: International Bank N. S-4 (1951) 1952 MH1 Iraq MH1

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MAP III

FACING P. 44 (B)

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1

311 waters of the twin rivers are largely wasted and periodically unloosen disastrous floods upon Baghdad and the alluvial plain to the south.

The Rain-fed Zone

241 438 In the upland plains of the rain-fed zone stretching from Northern Mosul to Suleimaniya, wheat and barley are the principal crops. Rainfall is generally inadequate for summer crops, although water from streams and springs permit cultivation of rice and cotton. In part of this area, especially Northern Mosul, there has been a rapid extension of cultivation with the help of modern agricultural machinery.

233 438 241 To the north and northeast lie the mountain massifs of Iraq. Here the raising of cattle, sheep and goats by Kurdish nomads is one of the principal occupations. The mountains are largely barren of trees but offer natural pasture for animals. In the valleys and on hillsides grain, tobacco, timber and fruit are grown. Tobacco, although small in area, is an important cash crop.

438 433 [315] Except for some handicrafts, there is little native industry in this region. Mosul, the second largest city in Iraq, is principally a commercial center and an outlet for exports to Syria and Lebanon. Kirkuk, however, is the center of most of Iraq's petroleum production and one of the largest and richest oil fields in the world. Oil fields of subsidiary importance also exist at Ain Zaleh in Mosul province and near Khanaqin in Diyala province. The mountains of the North may ultimately yield other minerals such as copper, chrome and iron.

The Irrigation Zone

133 311 South of the rain-fed zone the river valleys may be divided into three major regions: the upper river valleys; the lower river valley down to Amara and Nasiriya; and the triangular area from Nasiriya and Amara to the mouth of the Shatt al Arab.

The first of these regions includes most of the northern Jezireh and the area north of Baghdad and east of the Tigris. The latter area still awaits irrigation for the most part, and the Jezireh is hardly susceptible to irrigation because of the elevation and configuration of the land. The Jezireh is an upland plateau

7: International Bank N. S-4 (1951) 1952 MH1 Iraq MH1

427 241 average; and in date and fruit groves his allotment is likely to be equally small. In each of these cases, however, the output per donum is considerably more valuable. In the rain-fed plains of the North where land is more plentiful and yields more uncertain, he may on the average plant as much as 40 donums in winter crops. In most areas the fellah and his family can probably get as large a winter crop area as they can till, but their capacity is limited by lack of draft animals, primitive agricultural techniques and the debilitating effects of disease and a hot climate. In some areas of the irrigation zone, however, particularly in parts of Hilla, Kerbela and Diwaniya, the fellah appears to get less land than he can till owing to the limited availability of good, irrigated land. The same applies to some rice-growing areas, particularly in Amara.

Lack of sufficient draft animals and implements, low yields and the necessity of turning over a share of the crop to the landlord or pump owner all combine to depress the economic status of the sharecropper. His position can only be improved by enabling him to raise his output or by increasing his bargaining power through the creation of alternative opportunities for employment and the opening up of new lands to settlement.

Minerals: Oil

135 315 Iraq possesses considerable mineral resources. Of these by far the most important is petroleum. There are at present two major oil fields—one near Kirkuk in the North, the other near Basra in the South. The Kirkuk field is generally reputed to have reserves of over 1,000 million tons, while that near Basra, which is less well explored, seems to be almost equally promising. There are also minor oil fields at Ain Zaleh in Mosul province and near Khanaqin on the Iranian border.

135 Although surface indications of the existence of copper, iron, chromite and other ores have been found in the mountainous belt adjoining Turkey and Iran, the existence of deposits of sufficient size to warrant commercial exploitation must first be confirmed by core drilling.

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TABLE 7

ESTIMATED INDUSTRIAL EMPLOYMENT

Petroleum production and refining	11,500
Food and beverage	4,500
Tobacco	3,500
Wool and cotton processing, textiles, wearing apparel and footwear	11,000
Wood processing and wood products	2,000
Leather (other than footwear)	450
Chemicals (vegetable oils, soap, etc.)	550
Building materials	6,000
Metal-working, including jewelry	1,500
Machinery and machinery repair	2,700
Electricity and water supply	1,100
Miscellaneous	1,000
Total	45,800

Indications of output in the more primitive industries are very scanty, but data on output in some of the more modern industries can be found in the monograph on Industry. Production is, in general, on a modest scale, although some industries such as cement fill most of the country's needs.

Petroleum Production and Refining

Although production of petroleum is now rising rapidly, it has been relatively modest in the past. The exploitation of oil is predominantly in the hands of three companies—the Iraq Petroleum Company, the Mosul Petroleum Company and the Basra Petroleum Company—all owned in equal shares, except for five percent controlled by Mr. Gulbenkian, by the Anglo-Iranian Oil Company, the Royal Dutch-Shell, the *Compagnie Française des Petroles* and the Near East Development Corporation (owned jointly by Standard Oil of New Jersey and Socony-Vacuum). Of these three, the Iraq Petroleum Company, which is exploiting the large field near Kirkuk, is the only one in production. In addition, the Khanaqin Oil Company, a subsidiary of the Anglo-Iranian Oil Company, has a small concession adjoining the Iranian border.

Efforts to develop production have been concentrated mainly on the Kirkuk field where oil is found at the depth of only between

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1

315 2,500 and 2,800 feet and production costs are accordingly low. Production capacity has been increasing more rapidly than transport capacity. Until 1949 there were only two 12" pipelines with an annual capacity of over 2,000,000 tons each—one to Tripoli in the Lebanon, the other to Haifa in Palestine. With the outbreak of war with Israel the Haifa pipeline was shut down and work on the completion of an additional 16" pipeline to Haifa, which was to have an annual capacity of 4,000,000 tons, was halted. Output therefore had to be reduced from 4,354,000 tons in 1947 to 3,017,000 tons in 1948. With the completion of another 16" line to Tripoli in 1949, it rose again to about 6,000,000 tons in 1950. Work has proceeded steadily on the construction of a new 30" line, with an annual capacity of 13,000,000 tons, from Banias, Syria, and it is expected that this line will be linked in the spring of 1952 with the disused portions of the two lines to Haifa lying inside Iraq, thus permitting a partial use of the new capacity while the remainder of the line is finished in Iraq. Meanwhile the productive capacity of the Kirkuk field is being increased rapidly to an annual volume of over 20,000,000 tons.

In Mosul, where prospects are much less promising, production is not expected to begin until 1953 and then only at a rate of about 1,000,000 tons per year. Work on the fields near Basra, which are potentially very rich, was begun much later but is now rapidly proceeding. Production costs will be considerably higher than at Kirkuk because oil is found only at a depth of 10,000 feet or more. A pipeline with an annual capacity of about 2,500,000 tons has been completed to the port of Fao on the Persian Gulf, and oil is expected to start flowing early in 1952. The company has undertaken to increase production to 8,000,000 tons by 1955.

382 The output of the Khanaqin Oil Company is confined to two wells in the Naft Khaneh field and is used entirely in the company's Alwand refinery, a simple distillation plant which is the only refinery in Iraq. Although drilling is proceeding in the Chia Surkh field north of Khanaqin, it is unlikely that the company's total output will rise substantially. The company's Alwand refinery, which employs approximately 525 people, produces about 70 percent of the petroleum products consumed in Iraq, the remainder being supplied, until recently, from the Abadan refinery in Iran.

7: International Bank N. S-4 (1951) 1952 MH1 Iraq MH1

Petroleum products are distributed by the Rafidain Oil Company, a subsidiary of the Anglo-Iranian Oil Company, and at prices, exclusive of taxes, which are among the lowest in the world.

TABLE 8

PRODUCTION OF PETROLEUM AND REFINED PRODUCTS
(in thousand metric tons)

	1947	1948	1949	1950	1951 (est'd.)
Crude oil					
Iraq Petroleum Company	4,354	3,017	3,671	5,986	7,500
Khanaqin Oil Company	339	367	365	384	350
Total	4,639	3,384	4,036	6,370	7,850
Refined products	n.a.	373	369	393	—

VI. Transport

The state-owned railway system is the principal means of transport, carrying about 2,000,000 tons of cargo and over 3,000,000 passengers annually. Part of it is standard and part meter gauge. The standard-gauge section is part of the original Berlin-Baghdad railway and runs from Baghdad northward via Mosul into Syria and Turkey. The meter-gauge line extends from the Port of Basra in the South to Baghdad and then beyond to Kirkuk and Erbil in the North, with a branch line to Khanaqin. Over recent years the railways have managed to carry out a considerable capital development program despite serious financial obstacles, but they now face the need of replacing, on a considerable scale, old track, rolling stock and locomotives.

Road transport has as yet primarily supplemented rather than replaced railway traffic. There are only about 11,000 passenger cars and a little over 9,000 trucks and buses in the country. Roads are generally inadequate. There are only about 2,500 kilometers of metalled and surfaced roads in all of Iraq. The remaining dirt roads quickly become impassable in bad weather. Some important

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433 expanded will, however, require financial assistance from the Industrial Bank. This should be arranged just as soon as plans can be formulated.

Petroleum Development

382 315 [471] The further development of the oil industry can safely be left to the internationally-owned companies now operating in Iraq. Under an agreement finalized early in October 1951, subject to ratification by Parliament, the three major oil companies—the Iraq Petroleum Company, the Mosul Petroleum Company and the Basra Petroleum Company—undertook to increase their oil output to 30,000,000 tons per year by the end of 1955 and to turn over to the Iraq Government 50 percent of the profit on their production before the deduction of taxes. Although output in 1950 amounted to only about 6,000,000 tons, there should be no difficulty about attaining the agreed target. The oil resources of Iraq are immense, the reserves of the Kirkuk field amounting reputedly to 1,000 million tons, with the new fields near Basra offering equal promise. In the development of these fields and means of transport, the oil companies have already made an investment of close to ID 90,000,000, which is now beginning to yield a rapidly rising output. Development in the Kirkuk and Mosul field has already proceeded on the assumption that a production capacity of at least 22,000,000 tons would be achieved in a few years, and with the completion of the pipeline to Banias, Syria, there should also be ample transport capacity. The balance of the projected output, namely 8,000,000 tons, will have to come from the newer fields near Basra. This may require some increase in drilling and will necessitate additional pipeline capacity to Fao, but neither of these will be difficult to accomplish.

382 466 The oil companies have been among the leaders in Iraq in providing better conditions and amenities for their employees and in instituting schemes for training skilled labor and technicians. They have been criticized, however, for their failure to appoint more Iraqis to leading positions. Under the agreement already cited they have undertaken to send 50 Iraqi students per year to British Universities to study various subjects relating to the oil industry, and also to establish a school in Kirkuk to train 60 Iraqis yearly in technical oil subjects.

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working shops, battery and electrical repair work, shops for repair of automotive and agricultural equipment, bakeries, confectioneries and food processing establishments of various kinds. The amount of capital required in individual cases is quite small but, in the aggregate, it adds up to a considerable sum. The Industrial Bank should arrange for a small-enterprise section to make surveys of small industries in each community, advise them concerning ways of improving their methods of production and assist in getting proper financial help where it is justified. It is estimated that ID 400,000 would be sufficient to meet the needs of these industries over the next five years.

The assistance of small industries by the Industrial Bank is to be preferred to assistance or stimulation of so-called cottage industries. Cottage industries may be of benefit in the over-populated areas of Asia, but for Iraq they do not appear to be an appropriate solution to industrial growth. Iraq's population is small in relation to the resources available. Over the long term its problem is not primarily one of creating a maximum number of jobs with a minimum of capital but rather one of utilizing capital resources in ways which will make a permanent addition to the productive capacity of the country and to the building of modern industrial enterprises.

Establishment of New Industries

The entrance of industry into new fields would help to balance the over-all development of the country and to utilize its resources more fully. At the same time it would increase employment and thereby aid in raising the general standard of living.

Nitrate Fertilizer, Sulphur and Cement Plant

The largest and perhaps most promising possibility for new industrial development lies in the utilization of the natural gas produced in conjunction with oil. Upon completion of the 30-inch pipeline, oil production at the Kirkuk field will be at a rate which will make more than 25 billion cu. ft. of gas available per year. For the most part, this gas will be wasted until some means is found for its economic utilization. This gas contains, according

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491 are unsurfaced and impassable for long periods in wet weather. All-weather roads are at present found only in the Baghdad area and in the mountains in the North. The only passable trunk roads are those from Baghdad to Khanaqin, Baghdad to Kirkuk, Erbil and Mosul, and Baghdad to Rutba and Syria. Even these have shorter or longer sections in very poor condition. There is no all-season road between Baghdad and Basra.

508 Two civilian airports, Baghdad and Basra, serve the principal
509 air routes between Europe, Asia and beyond. Internal air services are limited to one line between Baghdad and Basra. Military airfields and landing grounds and a few private air strips are available in certain places, but demand for internal air transport has so far been negligible.

509 One state air line, Iraqi Airways, operates services with
475 neighbor countries and Egypt through Baghdad and Basra with a small fleet of four aircraft. Administration and management of the airline are combined with those of the state railways.

315 Oil from the oil fields at Kirkuk is carried by pipelines across the country to the Mediterranean ports of Tripoli and Haifa, but the line to Haifa is now out of operation. A shorter pipeline connects the southern Iraq oilfield with the Shatt al Arab oil port at Fao.

489 Transport connections with the outside world are well served by the Port of Basra for ocean-going traffic, by the airports of Baghdad and Basra in international air traffic and by the oil pipelines to the Mediterranean. At present only one railway line, beginning at Baghdad, connects Iraq with Syria, and via Syria with Turkey and Europe. A desert road exists for through road traffic between Iraq and Syria and Lebanon. A private company, Nairn Transport, operates an international bus service on this route. There are two main roads for exchange of traffic with Iran, one from Baghdad via Khanaqin, and one from Erbil via the Rowanduz Valley and Rayat. Future economic developments may perhaps demand new traffic outlets to the Mediterranean, shorter and better equipped than the existing railway and road routes, but at present there are few signs of such a demand.

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1

206 Development Board which is responsible for coordinating the development program of the country as a whole. The Board should also provide the financial means but leave to the PTT responsibility for execution of communications projects.

IX. Pipelines

315 Inconspicuous, but most important, in Iraq's transport and communications systems are the oil pipelines. The existing lines are: a dual line, 12 inches and 16 inches, from the Kirkuk oilfields to Tripoli, the Lebanese Mediterranean port; a 12-inch line to Haifa in Israel, closed in 1948; and a new 30-inch line under construction between Kirkuk and the Syrian Mediterranean port of Banias. A short line runs from the Basra oilfields at Zubair to the shipping stage at Fao. The pipelines carry a tonnage of oil which far outstrips the total carried by the country's railways. They are operated, maintained and expanded by the oil companies, and need only be mentioned to complete the picture of Iraq's transport system.

X. Surveys

654 No development in any branch is possible without maps and surveys. The Directorate General of Surveys, which is under the Ministry of Communications and Public Works, has surveyed and mapped the southern part of the country aside from the desert to scales varying from 1:5,000 to 1:50,000. Few topographical surveys have been carried out in the rest of the country, and the existing maps are not very reliable. The education and training of competent surveyors is difficult. Terms of service are not attractive to young engineers and surveyors who find better prospects in engineering, planning and construction work. Air surveys can, to all practical purposes, solve the problem and progress with them is now being made in the North. The skilled surveyors who are available are at present employed in cadastral work, land settlement surveys and mapping to fix the demarcation of land ownership.

2; United Nations U-4 (no date) 1950 M1 Middle East
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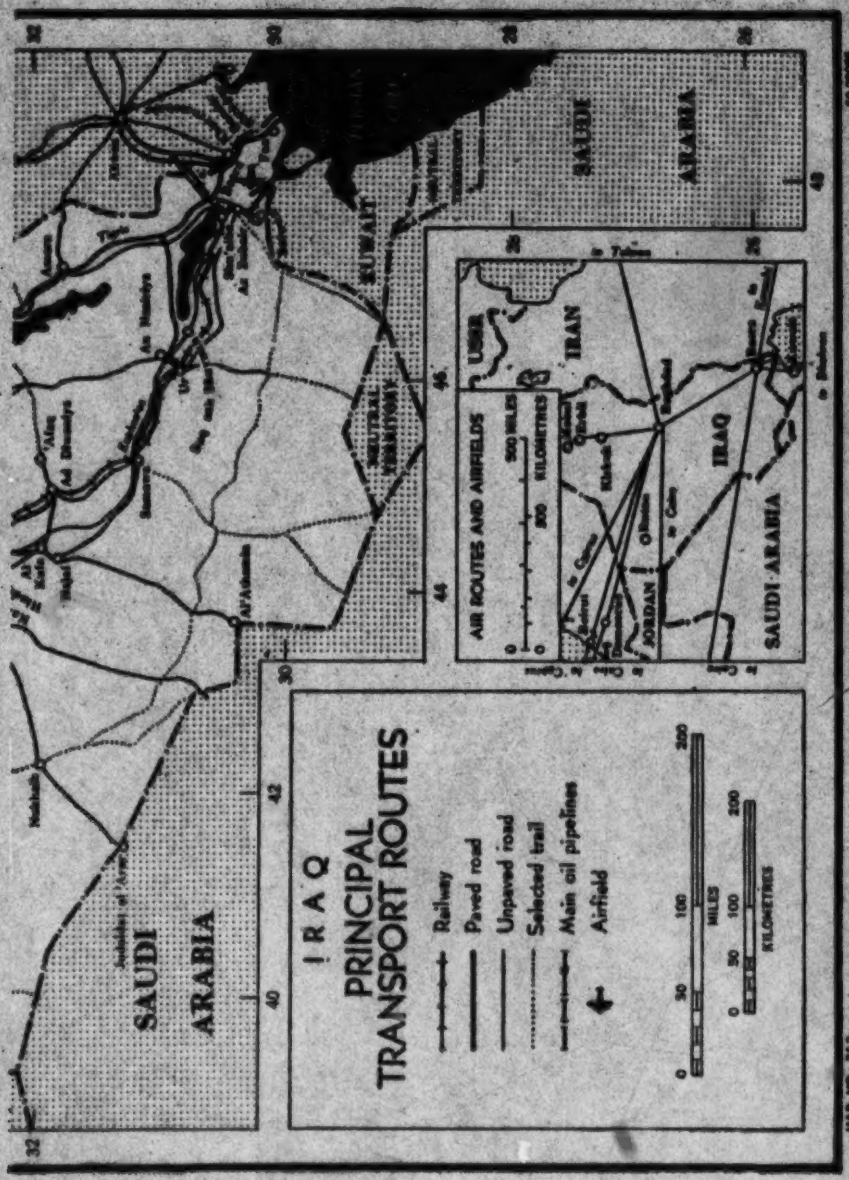

Minerals

315 The extraction of petroleum, which began early in the twentieth century, expanded considerably after the First World War. The possibilities of the country's petroleum extraction, which were ranked seventh among the principal producers in 1947 (see annex I, table 1), are estimated to be far in excess (perhaps several times greater) of the existing effective production. The oil fields are situated: (1) east of the Tigris, in the Kirkuk region (at present, thirty-one wells are worked and forty-eight are under observation; the largest is the Baba-Gurgur well), covering an area of over 80,000 square kilometres; this oil field is worked by the Iraq Petroleum Company; production is limited by the existing transport conditions; the reserves of the Kirkuk oil field are estimated at 1,200 million tons; (2) west of the Tigris, north of the 33rd parallel; the concession was granted on 25 May 1932 to the British Oil Development Company Ltd. for seventy-five years and was transferred in 1935 to the Mosul Petroleum Company for the production and transport of not less than one million tons annually; but the working of this field is still in the experimental stage; (3) south of Baghdad, the concession granted on 30 November 1938 to the Basra Petroleum Company for the working and transport of one million tons annually is also in the experimental stage; and (4) along the Iranian frontier, where the entire production from the oil field of Naft-Khaneh, worked by the Khanaqin Oil Company since 1925, is supplied, for local consumption only, to the company's

509 Since August 1949, the Dutch KLM line has been flying four weekly services. The Swiss company SWISS/AIR has a weekly Zurich—Geneva—Cairo —Basra service. The Air India International company operates two services a week on the Bombay—Basra—Cairo—Geneva—London route. Iraqi Airways offers two connexions to Baghdad.

Iraq's international civil aviation traffic was as follows, in thousands:

	1947	*1948*	*1949*
Kilometres flown	423.3	877.7	1,107.2
Passenger-kilometres	3,996.	7,673.	8,[illegible]
Freight ton-kilometres	105.6	220.6	174.6
Mail ton-kilometres	8.70	12.58	12.48

Pipe-lines

●315 As a country whose principal asset is its petroleum and whose reserves offer the prospect of a great development in the near future, Iraq is chiefly interested in the satisfactory transmission of its crude petroleum. The country's vast petroleum deposits now being worked are some 900 kilometres from the port of Basra. Hence nearly all the petroleum exported, which means in effect the production of the Kirkuk basin, is carried by pipe-lines leading to the Mediterranean ports of Tripoli and Haifa whence it is transported by boat to the various countries of destination.

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315 The double pipe-line belonging to the Iraq Petroleum Company, which is the largest pipe-line in the Middle East, was completed in 1935. It consists, in fact, of two pipe-lines with a maximum diameter of 32.4 centimetres (12¾ inches). The lines run parallel from Kirkuk, and separate at Haditha, forming an enormous letter Y: one pipe-line, commonly known as Branch T, runs across the Syrian desert to Tripoli (Lebanon); the other, known as Branch H, runs through Jordan and ends at Haifa (Israel). The first of these pipe-lines (Kirkuk—Tripoli) is 853 kilometres long, and the other (Kirkuk—Haifa) is 1,000 kilometres long. The whole system of pipe-lines has twelve pumping stations and depots; partially macadamized or good unmade roads run along the lines, and the system is equipped with a telephone line, radio, electricity and water supply stations, repair shops and dwelling houses. It is under constant supervision by land and air patrols. Its present annual capacity is approximately 4.3 million tons, equally divided between Tripoli and Haifa. The transport of crude petroleum in 1948 was very small, amounting to less than 3.5 million tons.

The same company is building two new pipe-lines, 40.6 centimetres (16 inches) in diameter, alongside the two pipe-lines already mentioned, with an estimated capacity of 8.5 million tons per year. In 1948, only the last section (56 km.) of a new pipe-line

315 between Kirkuk and Haifa, running from the Jordan frontier to Haifa, remained to be built. When these two new pipe-lines are put into commission, the annual capacity of the four pipe-lines will reach 13 million tons. In view of the heavy demands of consumer countries and the vast resources of the petroleum region of Kirkuk, the Iraq Petroleum Company is planning the construction of a giant pipe-line, 71.1 to 81.3 centimetres (28 to 32 inches) in diameter, from Kirkuk to Bamas (Lebanon). With the exception of the stretch between Homs and Baniyas (80 kilometres), this pipe-line will run parallel (in the north) to the 16-inch pipe-line now under construction. The time estimated for the construction and the cost would appear to be sufficiently favourable to make the scheme feasible, and it is hoped that this pipe-line, with its annual capacity of 14,600,000 tons, can be put into use in 1953. The annual production of the Kirkuk basin would thus amount to 27-28 million tons.

[382] Apart from the large pipe-lines described above, Iraq has a small pipe-line, 39 kilometres long and 10.2 to 15.2 centimetres (4 to 6 inches) in diameter, from the petroleum fields of Naftkhaneh to the Alwand refinery near Khanaqin, which has a refining capacity of 8,600 barrels (1,146 tons) per day, or 420,000 tons per year.

A
206 communications with Pakistan, India, the USSR, various European countries and the United States
207 of America. Kabul has a radio station broadcasting in the Pushtu language.

IV. General Remarks and Conclusions

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101 Geographers point out that formidable mountain barriers, which can only be crossed by difficult passes, separate Asia Minor from Asia proper and that the latter really begins only at the Mesopotamia plateau. As a matter of fact, although forming part of the same geographical group, Iraq, Iran and Afghanistan, generally speaking, have no natural connexions with each other. Furthermore, there is often no cohesion between the various regions in each of these countries.

241 From ancient times, the three countries have been essentially agricultural and they still remain so. The main occupation of the population, largely nomad, is agriculture and stock-raising.

I
489 In different ways and to varying degrees, the
[504] economy of these countries is seriously handicapped
[315] by the lack of means of communication. Iraq, as we have seen, has for its foreign trade the excellent deep port of Basra, with its modern installations, and a long river channel, the Shatt al-Arab, linking it to the Persian Gulf. However, there are permanent obstructions at the river mouth which are a constant preoccupation to the Basra port authorities. In the case of crude petroleum, Iraq's chief export, the transport problem has been solved by the construction of the remarkable pipe-lines which vastly facilitate operations, save time and reduce cost. Lastly,

489 needs of the southern districts are particularly acute:
653 as yet they possess only roads which are not prac-
[491] ticable for any traffic, still less for heavy motor traffic, during the rainy season and for a long time afterwards, and boat-bridges of a very old—almost antediluvian—type across the Euphrates and other rivers.

[508] The government is taking steps to modernize the Baghdad and Basra-Ma'agil airports (the latter, in addition to its modern technical installations, has had since 1937 an air-conditioned hotel, swimming pool, tennis courts, etc.). The aim is to make them into first-class international airports. In addition, a training school for civilian air pilots was established in Iraq in 1937.

377 As the country lacks hydroelectric power stations, in spite of the existence of various large dams, there is now a plan to utilize the Bekhme dam for the generation of electric power.

● 315 In the expectation of the return of normal political conditions in the Near and Middle East, the

[8] It is interesting to note that for the Basra—Baghdad section (568 km), these coaches are placed on special 1-metre bogies.

TRANSPORT AND COMMUNICATIONS REVIEW

315 Iraq Petroleum Company, for its part, is planning to build new pipe-lines which would enable the Kirkūk basin to supply 27 to 28 million tons of crude petroleum annually by 1953, that is, a volume greater than the 1948 production of Iran, which was and still is the fourth largest producing country in the world.

206 It seems that in spite of constant development the telecommunication systems, particularly the telegraph system, do not yet adequately cover the whole country.

000 Iran has many ports of varying importance on the Shatt al-Arab, the Persian Gulf, the Strait of Hormuz, the Sea of Oman and the Caspian Sea. Generally speaking, all these ports are in need of repairs, improved installations, materials, etc. Overseas Consultants, Inc., of the United States states that the ports of Khurramshahr and Bandar-Shahpur are constantly blocked and, as a first step in the Seven-Year Plan for the development of the country, it recommends the allocation of the necessary funds for urgent improvements at these two ports, and at the ports of Bushire and Bandar-Abbas, and the establishment of an administration of ports and inland waterways. This latter recommendation seems to be a significant finding as well as a proposal for action.

3:Royal Institute of International Affairs U-4 (no date)1954 M1 Middle East
Iraq MH1

Oil Industry

Petroleum concessions covering most of Iraq are held by IPC and the associated Mosul and Basra Petroleum Companies (MPC and BPC).[1] The three concessions are all for seventy-five years, from 1925, 1932, and 1938 respectively. They initially provided for the payment of dead rent until oil was produced and thereafter for royalties at the rate of 4*s.* gold per ton of crude oil exported. A new agreement, of 3 February 1952, made retroactive to 1 January 1951, provides that the Iraq Government shall receive 50 per cent of the companies' profits from their operations in Iraq before deduction for foreign taxes, part of the half share consisting of oil in kind (12½ per cent of the net production of each of the companies). In all circumstances except those of *force majeure* the Government's total income from the companies' operations is not to be less than 25 per cent of the seaboard value of all crude oil exported by IPC and MPC, plus 33⅓ per cent of the seaboard value of crude oil exported by BPC; the Government's income is further guaranteed at not less than £20 million sterling per annum during 1953 and 1954 and not less that £25 million during 1955 and subsequent years. Should circumstances of *force majeure* impose a suspension of oil production in the country, the Government will receive from the companies unconditionally a minimum annual revenue of 25 million for two years. In addition, the companies guarantee to produce and dispose of minimum quantities of crude oil annually as follows: IPC 20½ million tons, MPC 1½ million tons as from 1 January 1954, and BPC 8 million tons as from 1 January 1956. This replaces the previous undertaking that IPC should dispose of a minimum of 3 million tons per annum and MPC and BPC a minimum each of 1 million tons per annum. The approximate oil revenues forecast by the Iraq Government on the new basis for the years 1953–5 inclusive are respectively 45 and 59 million dinars.

Oil was struck for the first time in Iraq in 1927, near Kirkuk, and by the end of 1934 IPC exported crude oil through two 12-inch pipelines, each of 7 million tons' annual capacity, to Tripoli (530 miles) and Haifa (617 miles) on the Mediterranean coast. In 1949 a 16-inch pipeline of 4 million tons' capacity was opened to Tripoli. In consequence of the Palestine conflict work on a similar pipeline to Haifa stopped short at the Palestinian frontier; for the same reason the Iraq Government closed the 12-inch Haifa line, which has since remained disconnected at the

[1] For the location of concession areas, the length of period of the concessions, and the respective share holdings of the parent companies, see Appendix IV, pp. 568–9 below.

3:Royal Institute of International Affairs U-4 (no date)1954 M1 Middle East
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315 433 frontier. A 30–32-inch pipeline of 14 million tons' capacity was opened to Banias in Syria (560 miles) in 1952.

In the MPC concessionary area exploration and drilling were carried out before 1931, but it was not until after the Second World War that oil of certain commercial value was discovered and produced, at Ain Zala, north-west of Mosul. In 1952 the field was linked by a 12-inch pipeline to the IPC pipeline system, to permit the export of its crude oil to the Mediterranean coast.

In the BPC concessionary area exploration began in 1939 and, when resumed at the end of the war, was made more effective by the application of new geophysical methods. A field producing oil of good quality was developed in the area of Zubair, the average depth of the wells—some 11,000 feet—being greater than in any neighbouring Persian Gulf oilfield and four times greater than at Kirkuk. Oil is carried the seventy-four miles from the field to a new oil port at Fao, where oil was first shipped in December 1951, through a 12-inch pipeline; a second pipeline, of 24 inches, was completed in 1953 to cope with the company's increased production programme under the terms of the 1952 agreement.

433 Production of crude oil for 1952 (the first year of MPC and BPC production) was as follows: Kirkuk (IPC) 15,553,000 tons, Ain Zala (MPC) 270,000 tons, Zubair (BPC) 2,238,000 tons.

471 433 382 The area of eastern Iraq excluded from the concessions of these three companies has been developed by the Khanaqin Oil Company, a subsidiary of AIOC, on the basis of agreements made in 1925 and 1926. The output of the company's refinery near Khanaqin, together with imports from Abadan, provided Iraq's internal requirements of petroleum products. In accordance with an agreement ratified in 1952, the Iraq Government has bought the refinery, the company undertaking to operate it for ten years and, if requested, to operate also the new government refinery near Baghdad which is to replace it; after the Khanaqin refinery is closed the company will retain its production area on the same terms as those of the IPC 1952 agreement, conditional on exporting an annual minimum of 2 million tons of crude oil.

The government refinery at Daura near Baghdad, on which work started in 1952, is designed to produce a million tons of refined petroleum products per annum, a figure well in excess of the present requirements of the country. Meanwhile a small refinery of some 175,000 tons annual capacity has been erected [439] at Basra to help make good the deficiency caused by the cessation of petroleum imports from Abadan.

63:Simmons et al G-5 (1941-1951) 1954
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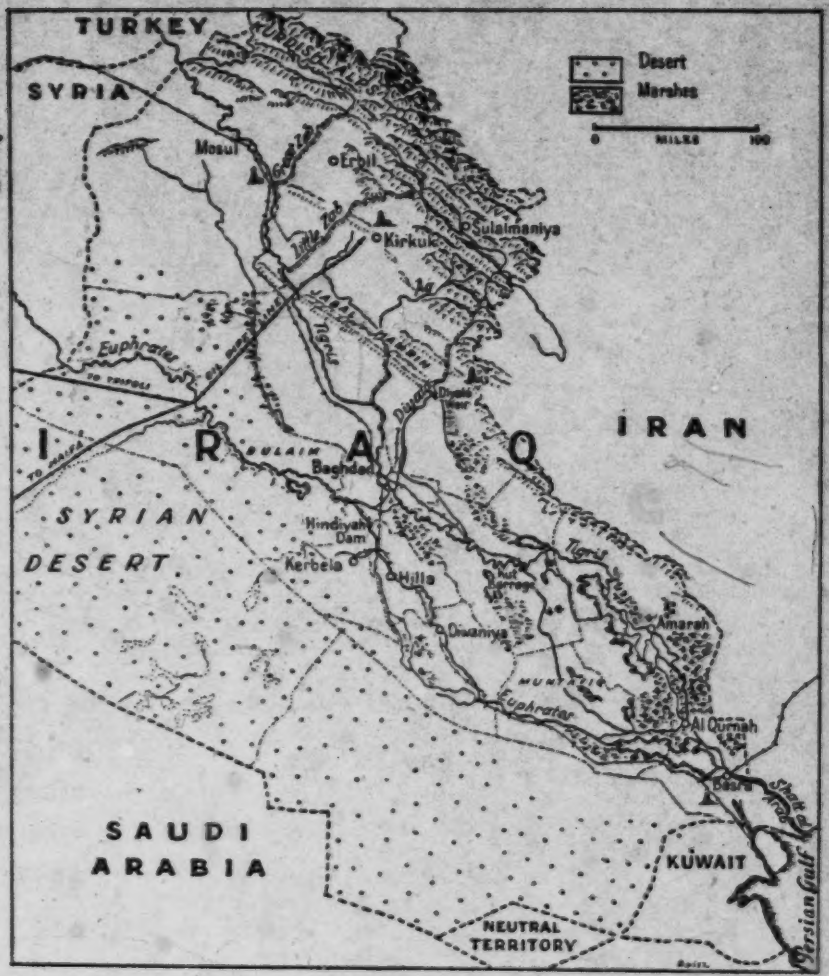

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63:Simmons et al G-5 (1941-1951) 1964
M1 Middle East
IRAQ MH1

of the 33rd parallel. Affiliated companies have concessions over the remaining territory—the Mosul Petroleum Company in the region west of the Tigris and the Basra Petroleum Company south of the 33rd parallel. Oil is extracted from the Kirkuk fields by the Iraq Petroleum Company and conveyed by pipelines to Mediterranean ports. It was formerly pumped to terminals in Tripoli and Haifa, but the latter pipeline has been closed since the Arab-Israeli hostilities in 1948. A new pipeline, constructed from Kirkuk to the Syrian port of Banias, was opened early in 1952.

In 1938, the Basra Petroleum Company began drilling operations in the Persian Gulf area, where the existence of an extensive oil field has since been established. In 1950, a pipeline was completed to its shipping terminal at Fao, at the head of the Gulf. The activities of the Mosul company are still in the exploratory stage, but the production of oil has recently been started at Ain Zala. It is piped to the Mediterranean by a line which joins that from the Kirkuk fields at Baiji, on the Tigris.

A smaller oil field at Naft Khanah, near the Iranian border, is worked by the Khanaquin Oil Company, a subsidiary of the Anglo-Iranian Oil Company. This company operates a refinery on the Alwand River, near Khanaquin, which supplies petroleum products for local consumption. Since 1952, it has also constructed a small refinery at Basra to process products for use in southern Iraq. It obtains the crude oil from Naft Khanah or from the Basra Petroleum Company.

Iraq derives a considerable revenue from the pilgrimage traffic. The principal shrines of the Shia sect are located at An Najef, Kerbela, Kadhimain and Samarra, and, in addition to local pilgrims, they are visited annually by thousands of Shiites from Iran, Pakistan and other Moslem countries. The privilege of burial near the shrines is also coveted by devout Shiite Moslems.

Transportation is mainly by roads or waterways. Motor highways link the princi-

64: Shwadran S-4 (no date) 1955 M1 Middle East
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Chapter VII

EARLY ATTEMPTS TO OBTAIN CONCESSIONS

The Turkish Petroleum Company

X471 THE KNOWLEDGE OF THE existence of petroleum in what is now Iraq goes back perhaps to ancient times, but it was not until the latter part of the last century that it became known that the vilayets of Bagdad and Mosul contained oil fields which might have commercial potentialities, and the Ottoman authorities became aware of the possibilities of exploiting these fields. In 1888 and 1898 Sultan Abdul Hamid conferred, by special firmans,[1] the concessions of the vilayets of Mosul and Bagdad, respectively, on his Civil List, thus making the concessions his private business.[2]

●[315] In 1904 the Civil List signed a contract with the Anatolian Railway Company—nominally Turkish but actually German—acting for the Deutsche Bank, to carry out a preliminary survey of the fields in the two vilayets, with an option, within two years after completing the survey, to enter into a contract with the Civil List for joint operation of the fields. Two years later the Civil List considered the agreement with the Anatolian Railway terminated and began negotiations with William Knox D'Arcy, who had the active support of the British Ambassador at Constantinople. While these negotiations were going on, the Young Turk Revolution took place and the Mesopotamian oil fields were transferred from the Civil List to the Ministry of Finance. D'Arcy continued to negotiate with the Ministry, but with no tangible results.

[1] For the Turkish text of these firmans and their English translation, see "The Mesopotamian Oil Fields," *Oil Engineering and Finance*, Feb. 17, 1923, 198-201.

[2] *Papers Relating to the Foreign Relations of the United States* (Washintgon, 1936), II, 81, (henceforth cited as *Foreign Relations* and year); Great Britain, Foreign Office, *Correspondence between His Majesty's Government and the United States Ambassador respecting Economic Rights in Mandated Territories*, Cmd. 1226, 1921, 11.

64: Shwadran S-4 (no date) 1955 Ml Middle East
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The Basrah Petroleum Company Concession

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On December 4, 1938, the Basrah Petroleum Company, also a subsidiary of the Iraq Petroleum Company, obtained a 75-year concession covering all lands not included under previous concessions (about 93,000 square miles). Except that Basrah was to pay dead rent of £200,000 (gold) annually until commercial quantities were exported, all the other provisions were the same as those of the Mosul Petroleum Company agreement.[19] Basrah began producing and exporting oil in 1951.[20]

As discussed in Chapter II above, after the Persian Government granted the concession to D'Arcy, Great Britain succeeded in obtaining recognition by the Turkish Government that the concession covered the strip of territory on the Turco-Persian border which had been transferred from Persia to Turkey in 1913. This strip, known as the "transferred territories," was recognized as part of the Anglo-Persian concession by all the parties involved in the discussions, negotiations and prolonged deals over Iraqi oil. On August 30, 1925, an agreement was concluded between the Government of Iraq and the Anglo-Persian Oil Company, granting the concession in the "transferred territories" for thirty-five years and establishing the royalty payments on a percentage of profits basis. The agreement also called for the formation of a subsidiary company to operate within Iraq. The subsidiary company was to erect a refinery for oil products to be consumed in Iraq; all the oil produced was to be for local consumption. The following year, on May 24, 1926, the agreement was revised. Royalties were to be paid on a per metric ton basis, the same as I.P.C.; the subsidiary company was also to become a marketing agency throughout the country; and the concession was extended for an additional thirty-five years.[21]

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The subsidiary organized was the Khanaqin Company. It produced oil from the Naft Khaneh field, and its refinery at Alwand, near Khanaqin, terminus of a twenty-five mile pipeline, was completed in May 1927. Early in 1932 a marketing

[19] The full text of the concession is reproduced in *Iraq Government Gazette*, Dec. 4, 1938, 686-706; the law ratifying the agreement, 672.

[20] Iraq Petroleum Co., *Iraq Oil in 1951* (London, 1952), 21.

[21] *Special Report*, Col. No. 58, 1931, 222. Six hundred eighty-four square miles were covered by this concession.

64: Shwadran S-4 (no date) 1955 MI Middle East
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company, the Rafidain Oil Company, was organized for the purpose of supplying Iraq's petroleum requirements. In May of the same year Khanaqin made over to Rafidain that portion of its business which was concerned with the marketing of oil and oil products in Iraq.[22]

Production

Oil in commercial quantities was discovered as early as 1927.[23] It was not until 1934, however, with the completion of the Company's pipeline, that large quantities of oil were produced.[24] Since the major fields were inland, at Kirkuk, the output was inevitably limited by the capacity of the pipelines. Table III, on the following page, gives total production from 1927 up to and including 1951.

Pipelines and Refineries

The production of oil in Iraq was conditioned, at least in large measure, as was noted above, by transportation, hence the provisions in the original concessions for the transport of the oil.

The first major pipeline built by the Iraq Petroleum Company was a parallel 12-inch line from Kirkuk to Haditha, a distance of 150 miles, where it branched off in two directions, one line going to Haifa (Palestine) for a distance of 470 miles,

[22] *Report 1932*, 40. A short summary of the various concessions is given in *The Middle East. A Political and Economic Survey* (Royal Institute of International Affairs, London, 1954), 281-282, and in *An Introduction to the Past and Present of the Kingdom of Iraq* (by a Committee of Officials, Baltimore, 1946), 43-45. A generalized outline of the terms of the concessions, almost on a schematic basis, appears in Raymond F. Mikesell and Hollis B. Chenery, *Arabian Oil: America's Stake in the Middle East* (Chapel Hill, N. C., 1949), 44-48; a sketchy outline is also given in *Review of Economic Conditions in the Middle East 1949-1950*. United Nations. E1910/Add.2/Rev.1, ST/ECA/9Add. 2, New York, 1951), 58. Henceforth cited U.N., *Review 1949-50;* Longrigg, *Oil in the Middle East*, 66-76.

[23] Drilling began in April and in October Baba Gurgur No. 1 well came into production with 60,000 barrels a day. Mohammed al Naqib, "How Iraq's Oil Production Began and Grew," *Al Aswaq al Tijariya*, Feb. 6, 1954; see also *P.D.C.*, 207, col. 658, June 13, 1927.

[24] The Company spent about $62,000,000 from the time of the signing of the concession in 1925 until the oil began to flow through the pipeline for commercial marketing. U.S. Senate, *American Petroleum Interests*, 228.

64: Shwadran S-4 (no date) 1955 Ml Middle East
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Table III. *Iraq Oil Production 1927-1951*

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	In Metric Tons[25]		
1927	45,000	1940	2,514,000
1928	95,000	1941	1,566,000
1929	116,000	1942	2,595,000
1930	121,000	1943	3,572,000
1931	120,000	1944	4,146,000
1932	115,000	1945	4,607,000
1933	123,000	1946	4,680,000
1934	1,031,000	1947	4,702,000
1935	3,729,000	1948	3,427,000
1936	4,011,000	1949	4,067,000
1937	4,255,000	1950	6,479,000
1938	4,298,000	1951	8,351,000
1939	3,963,000		
	In Barrels[26]		
1927	338,000	1940	24,225,000
1928	713,000	1941	12,650,000
1929	798,000	1942	19,726,000
1930	913,000	1943	24,848,000
1931	830,000	1944	30,943,000
1932	836,000	1945	35,112,000
1933	917,000	1946	35,665,000
1934	7,689,000	1947	35,834,000
1935	27,408,000	1948	26,115,000
1936	30,406,000	1949	30,957,000
1937	31,836,000	1950	46,760,000
1938	32,643,000	1951	61,534,000
1939	30,791,000		

and one to Tripoli (Lebanon) for a distance of 380 miles.[27] The line, which had an annual capacity of 4,000,000 metric tons,

[25] United Nations, *Statistical Yearbook, 1949-1950*, 147, and *1951*, 141. Production in metric tons covering the years 1928, 1933 and 1938-1950 is given in U.N., *Review, 1949-50*, 60; figures in metric tons for I.P.C. in Walter E. Skinner's *Oil and Petroleum Year Book* (London), for the years 1934-1951 in the volumes for 1936, 1940, 1946, 1949, 1951 and 1952. I.P.C. production for 1934, 1938 and 1946-1951 appears diagrammatically in *Iraq Oil in 1951*, 8; the cumulative production from the beginning of operations to the end of 1951 is given as 68 million tons, 9.

[26] *World Oil*, July 15, 1952, 66; see also the graph in *Iraq Oil in 1951*, 8, covering two pre-war years and 1946-1951—limited, however to I.P.C.

[27] A detailed description of this pipeline is given in *American Petroleum Interests*, 212; U.N., *Review 1949-50*, 61. The building of this parallel pipeline

64: Shwadran S-4 (no date) 1955 Mi Middle East
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was completed in 1934. The Anglo-Iranian Oil Company and the Dutch-Shell Company received their shares of oil at Haifa where, after the Consolidated Refineries were completed, it was refined. The American and French groups received their crude at Tripoli.

Immediately after World War II (October 1946) a second parallel pipeline to terminate at Haifa and Tripoli was started, but because of the Arab-Israel war the branch to Haifa stopped at the boundary, about 42 miles from the terminus; the branch to Tripoli was completed in July 1949. A 30-inch pipeline from Kirkuk to Banias (Syria) covering a distance of 556 miles and with an annual capacity of 12,000,000 tons, was completed in April 1952 and officially inaugurated on November 18. This large new pipeline made possible a 95 per cent increase in the oil production from Kirkuk as compared with that of 1951.[28]

For the Basrah area a 75-mile 12-inch pipeline, begun in 1948, was completed in October 1951 from the Zubair field to Fao on the Shatt-al-Arab, on the Persian Gulf; a parallel 24-inch line was commissioned on January 1, 1954. The new oil field of Rumaila, 20 miles west of Zubair was connected with the last-named field by a 20-mile 20-inch pipeline.[29]

In July 1952 a 135-mile 12-inch pipeline from Ain Zalah, in the Mosul area, to Station K2 on the main Kirkuk-Mediterranean pipeline, was completed.[30]

The question of refineries was one of the major issues between the Iraq Government and the Iraq Petroleum Company. The former was anxious to have refineries on its territory; they would not only supply refined petroleum products necessary for home consumption, but would also increase the country's income, employ a greater number of workers, and enable the Iraqis to learn the necessary technique in the advanced stages of the oil industry.

A small refinery to meet local needs—but perhaps more because the A.I.O.C. would not build a long pipeline to carry the limited quantity of oil produced at Naft Khaneh in the "trans-

was provided for in the agreement signed on Mar. 24, 1931 and the British Government had previously obtained agreements from the Governments of Palestine and Transjordan, *P.D.C.*, 248, col. 212, Feb. 10, 1931; *P.D.C.*, 250, col. 1080, Apr. 1, 1931.

[28] U.N., *Review 1949-50*, 61; *Iraq Oil in 1952*, 2. It took seventeen months to complete and cost £41 million.

[29] *Iraq Oil in 1953*, 27; *Iraq Oil in 1954*, 14.

[30] *Iraq Oil in 1952*, 27-30.

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ferred territories"—was erected at Alwand in 1927 by the Khanaqin Oil Company, as mentioned above.[31] It produced about 70 per cent of the petroleum products consumed in Iraq; the remainder was supplied by the Abadan refinery in Iran.[32]

In spite of persistent agitation by the Government, until 1951 the Iraq Petroleum Company refused to build more refineries in Iraq; it had two very small refineries at Kirkuk and Haditha, and a processing plant at Kirkuk. The great refineries were in Haifa and in Europe.

Closely connected with the question of refining was that of marketing of oil and oil products for internal consumption. As mentioned above, this was concentrated in the Rafidain Company. On December 25, 1951, the Iraq Government and the Khanaqin and Rafidain Companies signed an agreement providing for the purchase by the Government, at an agreed amount, of the Alwand refinery and the Rafidain facilities. Rafidain, acting on behalf of the Government, was to operate the refinery and, until 1961, was also to act as sole distributing agent for certain oil products for local consumption.[33]

To satisfy all local consumption demands, the Government decided to build a large refinery in the vicinity of Bagdad. Early in July 1951, it announced that it had accepted a bid from W. W. Kellog[34] of New York to erect a refinery south of Bagdad, with an annual capacity of 1,000,000 tons. Work on the refinery at Doura started in 1952 and was expected to be finished in 1955, at a cost of £10,000,000. A 135-mile 12-inch pipeline was to bring crude from pumping station K2. In the meantime, as a temporary measure to meet the emergency created by the shutdown of Abadan, a small refinery with a 175,000-ton annual capacity was erected at Muftiya, outside of Basrah. In addition, the stabilizing and topping plants at Kirkuk helped to meet immediate local needs.[35]

[31] *P.D.C.*, 207, col. 1467, June 20, 1927.

[32] International Bank for Reconstruction and Development, *The Economic Development of Iraq. Report of a Mission* (Baltimore, 1952), 150-151. Henceforth cited, International Bank, *Iraq Mission Report.*

[33] Iranian Oil Co. Ltd., *Annual Report and Accounts as at 31st December, 1951*, 21.

[34] *The Christian Science Monitor*, July 6, 1951.

[35] *Iraq Oil in 1952*, 16-17; *The Middle East. A Political and Economic Survey*, 282; United Nations, Dept. of Economic Affairs, *Summary of Recent Economic Developments in the Middle East 1952-53* (New York, 1954), 49-50. Henceforth cited U.N., *Summary 1952-53.*

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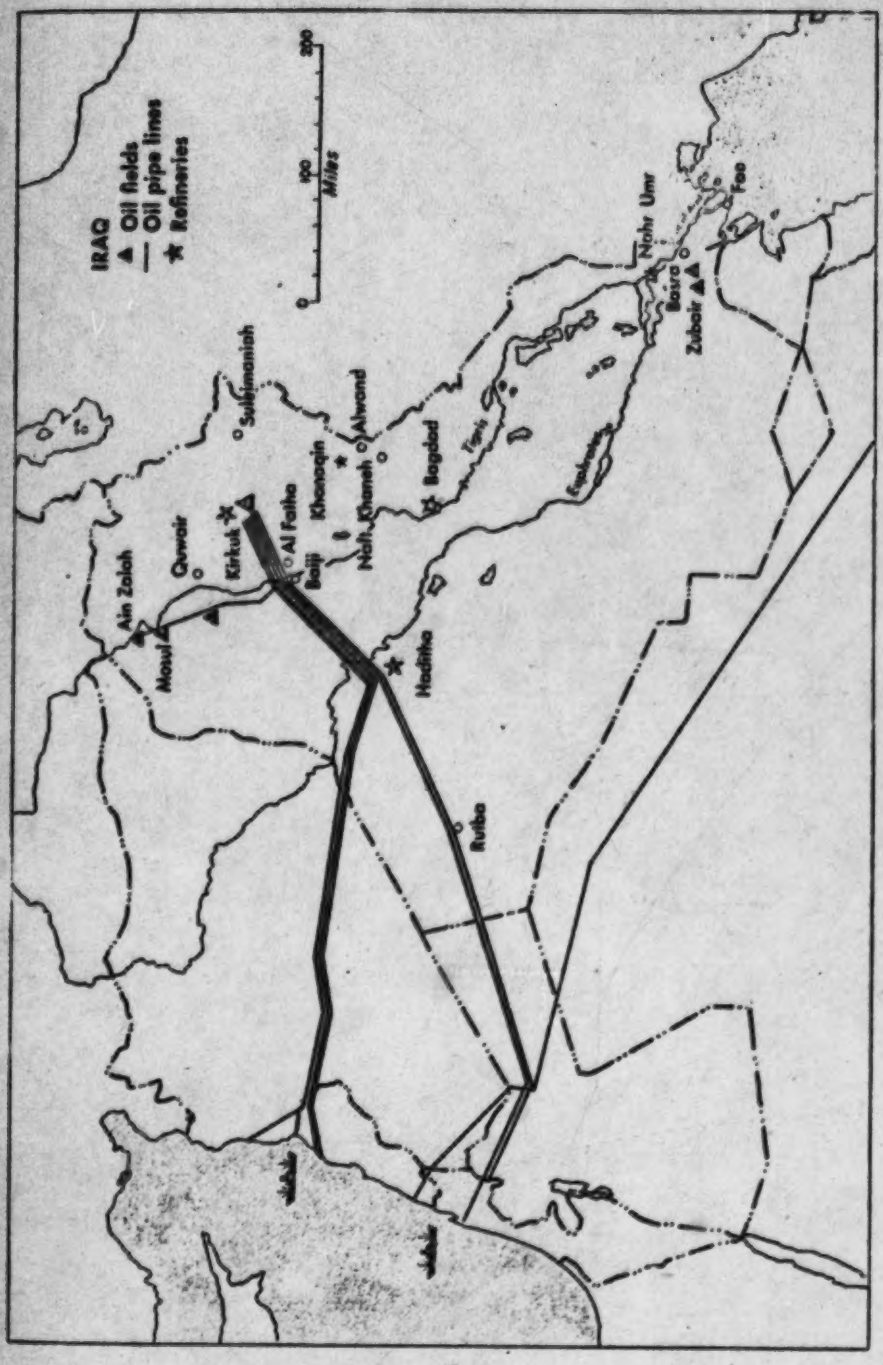

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creased. Of all the Middle Eastern countries, Iraq has all the necessary requisites for a sound and rapid economic development, especially in the agricultural sector. It has a very considerable quantity of land ready for immediate cultivation, so defined by the most conservative standards, and with modern methods very great stretches now defined as uncultivable could be improved and brought into the cultivable class; it has an abundance of water for irrigation as well as for power, and it has at its disposal enormous quantities of cheap fuel both in petroleum and natural gas.

What, then, have been the economic, educational, health and social conditions of the country? As regards the size and growth of the population, even today, more than thirty years since the creation of the Kingdom of Iraq, it would be very difficult to state categorically the percentage increase of the population. The accuracy of the figure advanced by the October 1947 census has been questioned by the International Bank Mission.[7]

Despite substantial strides in public health—an increased number of hospitals, dispensaries and doctors—during the first thirty years of the existence of the Kingdom, the Bank Mission reported in 1951 that the infant mortality rate was very high, "perhaps as much as 250 per 1,000 births," and that there was a very high incidence of such endemic diseases as trachoma, hookworm, bilharzia, malaria and dysentery. Malaria was reported to cause 50,000 deaths every year. In 1948 no less than 6,657,474 visits to medical institutions for treatment were reported, and 1,291,225 cases of infectious diseases were treated. Of these, 603,698 were malaria and 524,740 trachoma.[8] In 1944 the total number of doctors in the country was 528; in 1951 it was reported that there was one doctor to every 7,000 in the population, which would make a total of about 915 doctors, but a large percentage of them were concentrated in Bagdad.[9]

There can be no doubt that educationally the country progressed considerably from the stage in which it was in 1921, but all in all the sum total was not very impressive; the rate of

[7] International Bank, *Iraq Mission Report*, 126.

[8] *Ibid.*, 49.

[9] *Ibid.*, 55; Hashim Al Witry, *Health Services in Iraq* (1944), 8. In 1945 there were, according to a British report, 569 doctors registered in Iraq. Since 308 were in Bagdad, this made approximately one doctor for every 15,400 in the population in the provinces, and one doctor to every 2,700 in Bagdad. Great Britain, Overseas Economic Survey, *Iraq* (1949), 30-31.

67: United Nations S-5 (1945-1954) 1955 MI Middle East
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Chapter 4

IRAQ

Developments to the End of the Second World War

433 At the end of the First World War, when Iraq was constituted as a State, 312 very little had been done to develop its economy. An over-all irrigation 315 programme had been drawn up, and the Hindiyah barrage had been built on the Euphrates and work begun on the Habbaniyah escape channel, but the outbreak of war had interrupted progress. The war had also prevented the exploitation of oil deposits by the Turkish Petroleum Company, formed in 1914. In the nineteen twenties, development was started. The digging of canals, the building of minor [496] works and the installation of irrigation pumps resulted in a substantial increase in cultivation, and there was also a slight improvement in farming methods. Railways were extended and other means of transport improved.

436 Further steps were taken in the nineteen thirties. In 1932, instead of the 312 rupee, the Iraqi dinar became the unit of currency. The Kut barrage, on the 433 Tigris, and various canals, regulator dams and minor projects were completed. The establishment of a few cotton gins, textile plants and other factories 652 producing consumer goods marked the beginning of modern industry. A government- 423 owned Agricultural and Industrial Bank was set up. A land settlement law was passed in 1932 and amended in 1938, and work on land settlement began in 1933.

471 Of more importance to the Iraqi economy was the development of the petroleum 382 industry. In 1925, the Iraqi Petroleum Company, a successor to the Turkish 315 Petroleum Company, was granted a concession, and in 1927 the Kirkuk oilfield was 651 discovered. By 1934, that field had been brought into production, and two 652 pipelines, with an annual capacity of 2.2 million tons each, had been laid to the Mediterranean coast; these developments required an investment of $62 million. Exports of oil began that year. The royalties and other revenues from petroleum accruing to the Government greatly increased its receipts and made it possible to augment expenditure on economic and social development.

433 During the Second World War Allied troops stationed in Iraq spent large sums on local purchases; from 1941 to 1944 inclusive, these expenditures totalled £64 million. There was a corresponding increase in national income, expressed in monetary terms, and prices rose considerably, the wholesale price index reaching a peak of 590 in 1943 (December 1938 to August 1939 = 100) and standing at 503 in 1945. This addition to national income and rise in prices stimulated agriculture; the area under cultivation was considerably extended, by irrigation and greater use of farm machinery, and although yields declined, total output increased somewhat. The greater part of the Allied expenditures was saved, in the form of sterling balances, which, in July 1947, amounted to £57.9 million. 1/

1/ National Bank of Iraq, Annual Report, July 1949-December 1950 (Baghdad, 1951).

Petroleum

433 The petroleum industry in Iraq has made striking progress during the post-war
382 period. Production and exports, which had been low mainly owing to the lack of
315 transport facilities, increased sharply following construction of new pipelines
439 to the seacoasts. Exploration activities led to the discovery of new oilfields, which are being developed. As a result of increasing output of petroleum and the revision of the terms of payment, Iraq's oil revenues have multiplied. These revenues have provided the financial means for development of the country's resources. Revenue from the oil industry, which is in the form of sterling, together with the substantial and rising foreign exchange disbursements of the oil companies for local expenditures, increased considerably the foreign exchange supplies of the country and made larger imports possible. Availability of petroleum products, at relatively low cost, has facilitated economic development, [464] and the consumption of oil products has increased severalfold. In addition, the petroleum industry has given employment to an increasing number of employees (see table 27) and is providing them with training. After a setback during the war years, when production declined to 1.6 million metric tons in 1941, output of crude petroleum in 1944 recovered to its pre-war level of 4.3 million metric tons. Construction of two additional pipelines, parallel to the previous lines and with a yearly capacity of about 4.5 million tons each, started immediately after the end of the war. The pipeline to Tripoli was completed in 1949, but construction of the other, destined for Haifa, was interrupted by the Palestine conflict and it remains incomplete. Another large-diameter pipeline with an annual throughput capacity of 13.5 million tons, linking the Kirkuk field to Baniyas in Syria, was completed in 1952 at a cost of ID 41 million. In the meantime, the activities of the Basrah Petroleum Company and the Mosul Petroleum Company, Ltd., both affiliated with the Iraq Petroleum Company, led to the discovery of Ain Zalah and Butmah oilfields in the Mosul area, and Zubair and Rumaila oilfields near Basra. The development of these fields, especially Zubair, and the installation of pipelines and oil handling facilities during the past four years, has increased substantially the crude petroleum export capacity of Iraq. In addition, another smaller oilfield had been discovered by a subsidiary of the Anglo-Iranian Oil Company before the war at Naftkhaneh, near the Iranian border, and its output, which was refined locally, served the domestic market exclusively.

As a result of the foregoing developments during the last decade, as well as increasing world demand for petroleum, production of crude oil, which had declined from 4.7 million tons in 1946 and 1947 to 3.4 million tons in 1948, because of the Palestine conflict and the shutdown of the pipeline to Haifa, started to rise sharply, to 6.5 million tons in 1950, 18.9 million in 1952, and 29.6 million in 1954, representing in the latter year 4.3 per cent of the world's crude petroleum output as against 1.5 per cent in 1938. This production may be compared with proved oil reserves, which were estimated at 700 million tons in early 1949, and nearly 2,300 million tons at the end of 1954. Total investment in the petroleum industry of Iraq was estimated in 1952 at approximately ID 90 million, of which the main portion had been for construction of pipelines.

439 Iraq is exclusively an exporter of crude petroleum; the value of petroleum
382 exports was estimated at ID 137 million in 1954 as compared with ID 10 million
471 in 1938. Exports are handled by the parent companies of the Iraq Petroleum Company and its affiliates, but under the terms of the February 1952 agreement,

these schemes would raise annual capacity to over a million tons. Other projects include a sugar factory using locally grown beets to produce 10,000 tons of sugar per annum and refine 25,000 tons of imported sugar, at an estimated cost of ID 1.78 million; a pilot paper plant; a glass factory; a rayon factory; and a tobacco factory. 1/

The most important project connected with petroleum is a refinery with an annual capacity of one million tons, at Dora, near Baghdad. Completion was scheduled for 1955 and total costs have been estimated at ID 10.5 million. A pipeline supplying the refinery with crude petroleum, from Baiji, on the Euphrates west of Kirkuk, has been completed and five pipelines are under construction to carry the refined products to Baghdad and Um Al Adham. 2/ An asphalt refinery being built at Qayara, near Mosul, at a cost of ID 1.15 million, is expected to produce 60,000 tons of asphalt per annum, as well as 24,000 tons of gas oil. A smaller plant at Muftiya, near Basra, with an annual capacity of 6,000 tons, was scheduled to start operations at the beginning of 1955. 3/ A lubricating oil refinery has also been approved near Baghdad; it will produce 25,000 tons and cost 3.4 million.

The major project under consideration is that for utilizing natural gases from the Kirkuk oil wells to produce chemical fertilizers, cement, sulphur and electric power. Two alternative projects have been submitted, one of which would cost ID 33 million and produce 500,000 tons of nitrogen fertilizers, 200,000 tons of cement and 100,000 tons of sulphur, while the other would cost ID 20 million and produce half these quantities.

A survey of mineral resources is being carried out by a group of foreign consulting engineers. Negotiations are proceeding with a United States sulphur company regarding the exploitation of Iraq's sulphur deposits, which are believed to be large.

Other development projects include a highway and bridge building programme, the expansion of Baghdad airport and improvement of telecommunications. In addition, a large-scale building programme is under way, including hospitals, schools, low-cost housing and public buildings.

The new Five-Year Plan

The Ministry of Development and the Development Board have approved the new Five-Year Plan for the financial years 1955/56 to 1959/60. Subject to approval by Parliament, the plan calls for an estimated total expenditure of ID 303,306,100. Revenue estimates total ID 252,658,000. These are calculated on an estimated annual revenue of ID 43 million derived from a 70 per cent share of the oil receipts making a total of ID 215 million, plus a sum of about ID 38 million from previous years. The deficit of about ID 50 million is to be balanced by an anticipated increase in oil revenue during this period.

1/ The Iraq Times, 20 October 1954.

2/ Ibid., 6 December 1954.

3/ Ibid., 19 November 1954.